



The Minuteman Repeater Association

The Minuteman

Volume 39, Number 2

November 2009



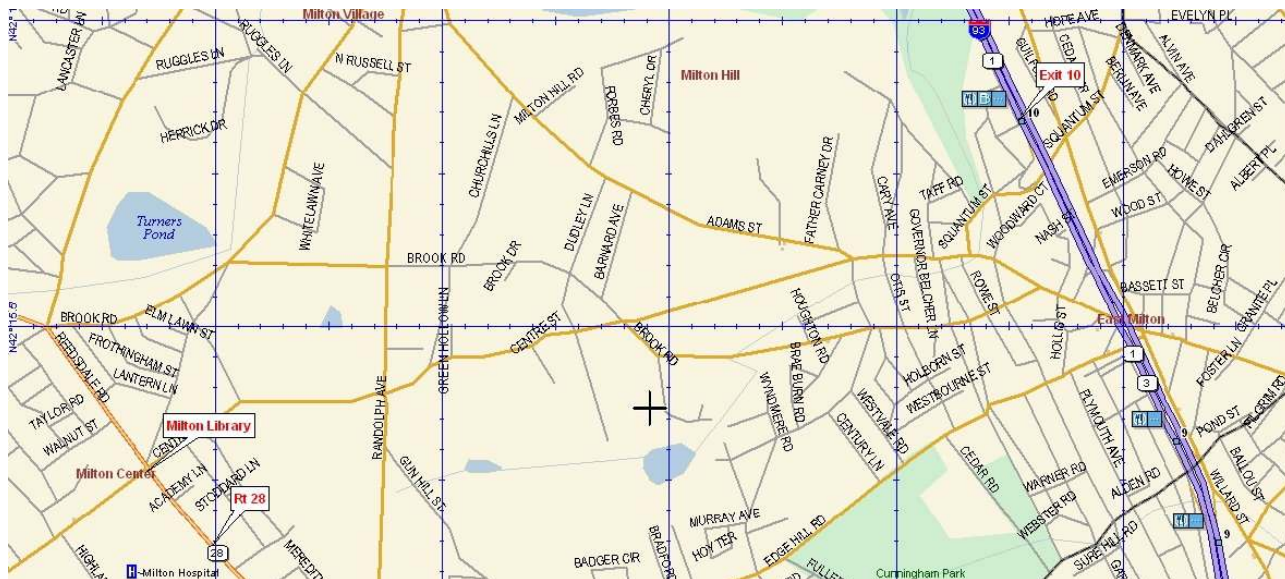
Membership Meeting

Wednesday, 18 November, 2009 @ 7:00 PM

The PAVE PAWS Radar

Milton Public Library, 476 Canton Ave, Milton, Mass

Lt Col. Max Lantz, Commander, USAF 6th Space Warning Squadron will present a description of the U.S. Air Force's PAVE PAWS facility and its mission. He will also field questions from the audience concerning PAVE PAWS and its relation to amateur radio.



Directions

From West or South:

Take Route 128 to route 28 N, Randolph Ave. toward Milton. At fourth traffic light turn left on Reedsdale Road (staying on 28N). There is a Tedeschi's on the right and a church on the left. At next traffic light turn left onto Canton Ave. Library is on this corner, use the 1st driveway to turn left into parking lot.

From Boston, via Southeast Expressway (Route 93 South)

Take Exit 10: Milton, Squantum Street
Bear right onto Adams Street at end of Squantum.
At first light go left onto Centre Street
Continue through the third traffic light, just after Milton Academy.
Library is on your left. Use the 1st driveway to turn left into the library parking lot.

**Dues
were Due
Sept 1st.
See
Pages 8, 9**

Table of Contents

Next Meeting	1
MMRA Information	2, 8, 9
Sept. Members Meeting	3
Public Service	3
October Board Meeting	4
FCC Notice	5
New MRW Shelter	6
Foxhunts	6, 7
Treasurer's Report	9
Events & Fleas	10

About the Minuteman Repeater Association

The Minuteman Repeater Association (MMRA) is dedicated to Amateur Radio and public service. The MMRA maintains a large system of repeaters in Eastern Massachusetts.

The MMRA meets (usually) on the 3rd Wednesday of September, November, January, March, and May. Meeting time, locations and talk-in frequency vary. These are announced in the newsletter and on weekly nets. Meetings are open to all interested parties.

The Minuteman newsletter is Emailed one week before each meeting. Members are encouraged to submit articles. Articles may be sent to the editor via email to newsletter@mmra.org. The deadline for articles is the last Friday of the month preceding the meeting.

Each Tuesday evening at 8PM the MMRA links most of the repeaters for an open net. The topic is "Technical Information and Other Stuff". Join us!

Membership in the MMRA is open to all radio amateurs. Annual dues are \$25 per individual or \$35 per family. See our website for details.

Email to the club leadership should be sent to contact@mmra.org. The MMRA maintains a web site at: <http://www.mmra.org/>

An email distribution list for club members named "MMRA" is at: www.yahoogroups.com/

No part of this newsletter can be copied or posted elsewhere without prior approval from the club. Your cooperation in this matter is appreciated.

MMRA QRM Policy

MMRA members and all other operators are strongly encouraged to report repeater activity that does not abide by Part 97 rules or accepted amateur radio practice to the board of directors at contact@mmra.org or via other means.

The most effective (and probably the only effective) way to deal with an individual causing QRM is to NOT engage that individual on the air. Please include the time and date of any incident. Measures are being taken to make audio recordings of repeater activity.

Repeater and Frequency Information

Up-to-date information about both MMRA repeaters and affiliate repeaters can be found at

<http://www.mmra.org/repeaters/map.html>

New or Moved Repeaters

Location	MHz	PL	Call	Linking	
				To Hub 1	To Hub 2
MMRA Voice Repeaters					
Marlborough	29.680	131.8	W1MRA	PTL	—
Marlborough	53.810	71.9	W1BRI	PTL	—
Boston	145.160	—	W1MRA	D-Star	
Belmont	145.430	67.0	WA1RTT	—	—
Mendon	146.610	146.2	AE1C	FTL	PTL
Quincy	146.670	146.2	W1BRI	PTL	PTL
Burlington	146.715	146.2	N1NVL	PTL	PTL
Weston	146.790	146.2	N1BE	PTL	FTL Hub2 10-4
Brookline	146.820	146.2	K5TEC	FTL	PTL
Marlborough	147.270	146.2	W1MRA	PTL	PTL
Hopkinton	223.940	103.5	K1KWP	FTL	—
Quincy	224.400	103.5	N1KUG	Off the Air	
Weston	224.700	103.5	N1NOM	FTL	PTL
Marlborough	224.880	103.5	W1MRA	PTL	FTL
Weston	442.700	88.5	W1MRA	Network Hub 2 (PTL to Hub 1)	
Burlington	446.775	88.5	W1DYJ	FTL	PTL
Southborough	449.575	88.5	W1BRI	PTL	—
Marlborough	449.925	88.5	W1MRA	Network Hub 1	
Marlborough	927.700	D244	W1MRA	—	—
Boston	927.775	D244	K1RJZ	PTL	—
MMRA “Other” Systems					
Marlborough	144.390	none	W1MRA	APRS Digipeater	
???	145.630	146.2	W1MRA	Fox Box	
Internet	Echolink node 94940				
	IRLP node 4133				

Notes: FTL = Full Time Linked (or default state)
PTL = Part Time Linked (on schedule or demand)
Note — a repeater can be linked to only one Hub at a time.

PL: PL is required to prevent interference. The code **750** will temporarily disable the MMRA PL on the 2M repeaters.

Autopatch: Only the Hub 1 has a telephone line. Link to Hub 1 if necessary, then bring up the autopatch using the 449.925 autopatch codes.

Control codes are sent to members upon receipt of dues.

Public Service and the MMRA

Bruce, KC1US — Public Service Coordinator

One of the objectives of the Minuteman Repeater Association is to be active in Public Service. Due to repeater locations and linking, the systems themselves are called on many times.

First, there are some large scale events. In April is the Boston Athletic Association Marathon which links Marlboro, Weston and Quincy machines with Belmont operating independently. These are used to link about 150 radio operators at Red Cross Aid Stations and water stops along the race course. A consortium of clubs organizes this event with many MMRA members in lead roles.

For the Marathon Walk in October Marlboro, Brookline, Quincy are linked. Belmont also fills in a few spots.

At the Walk for Hunger in May and the Head of the Charles Regatta in October, Belmont and Brookline repeaters are used, which gives good coverage of the Boston, Cambridge and Newton areas for hand held users.

Other smaller events include talk in for the Algonquin ARC flea market, the Run of the Charles Canoe and Kayak Race and the Minuteman bicycle tour for the Multiple Sclerosis Society. Events taper off in the winter, but will be back in the spring. Keep tuned to this space.

Membership Meeting Report

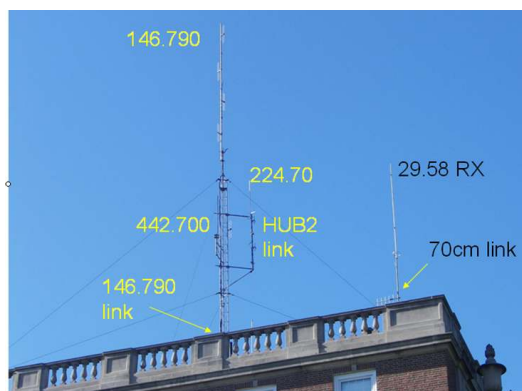
16 September 2009

Bob, K1IW, walked us through what had happened during the summer, and what was in the future. Some highlights that were not in the last newsletter.

MMRA on 10M:



Equipment rack at receiver site



Antennas



Transmitter



Transmitting Antenna

Next Up...

- Quincy "Buzz-Buzz" interference
- Quincy 224.400 interference
- Southborough Intermod when linked to HUB1
- Weston Intermod when linked to WCH
- 6m Power Amplifier Upgrade
- HUB controller upgrade

MMRA October Board of Directors Meeting

Bob Evans — N1BE — Clerk

The MMRA board met at 19:00 EDT on October 21 at Stratus Technologies in Maynard, MA. Present were K1KWP, WA1NVC, K1IW, W1MPN, KC1US, W3EVE, N1BDA, W1DYJ, K1RJZ and N1BE.

K1KWP spoke first with a Treasurer and membership report. Kevin has a new format for graphically presenting this information. He reviewed anticipated expenditures for this year and historic expenses for the last 5 years. The report showed income broken down by sources for this year and the past 5 years. We also reviewed power usage and changes to the telephone service at MRW where DSL is now installed for linking the 900MHz repeater via the Internet.

Bob, K1IW led a discussion of repeater status that covered only the few repeaters now having problems:

- 224.400 in Quincy is off the air.
- 146.67 in Quincy is receiving "Buzz-Buzz" interference. This sounds like the kind of problem that Bryan eventually figured out in Marlboro -- sporadic unintended radiation from a cordless phone charger. This will probably require a fox hunting effort at a time when the interference is active.
- We brainstormed steps for determining the cause of de-sense to 146.82, Brookline. When transmitting, a signal appears on the 146.22 MHz input frequency. This problem is present all the time.

Newsletter issues were next discussed. There was a suggestion for a new column on current public service events and which MMRA resources were expected to be in use.

K1KWP will not be available to fold and mail the next newsletter. N1BE agreed to do this with the following assistance: W3EVE will print and supply address labels; K1IW will supply a list of expired members; N1BE will create an insert reminding expired members to renew as otherwise they will get no future newsletters.

New business items were next discussed.

- The board wants to thankfully recognize KB1OEI for transporting the new MRW shelter from Maine to Marlborough. Although it is a small token compared to Keith's time and expenses, the board voted unanimously to at no cost extend Keith's membership for the next year.
- Linking of the 900MHz MRW repeater was next discussed. DSL with a VOIP phone line has been installed with the intention to replace the previous Verizon POTS

phone line. The VOIP phone has been connected to the HUB1 controller. The DSL will be used for IRLP connection to 900MHz. K1IW supplied a computer for IRLP. Thanks to K1RJZ, GEMOTO paid for the cost of a memory module and a specialized IRLP board. The board voted unanimously to accept the donation from GEMOTO.

- 145.16 D-Star in Boston was briefly discussed. K1IW expressed some concern about potential for interference to adjacent analog channels. Bob supplied a computer and cables for the D-Star software. WA1WOK supplied media containing the D-Star software. N3HFK will install the OS and application software. Internet access at the repeater site will be available at no cost.
- Boston 900 MHz is receiving noise from Part-15 devices. A trial of moving the input to the low end of the band was proposed. The board unanimously approved a temporary move of the input frequency to 902.0125 MHz to avoid this interference. The board also unanimously approved the following: If the test on 902.0125 MHz is successful, to apply at the Nov 7th NESMC meeting for coordination on this frequency, with possible TX frequency change to maintain the usual 25 MHz split. Several of the MMRA board members confirmed their plans to attend that NESMC meeting.
- N1BDA suggested we consider an MMRA policy for use of digital modes on analog repeaters. The board passed this motion unanimously: *The MMRA Network is intended for voice communications. Digital transmissions on analog repeaters are not permitted except where authorized. For experimenting, digital modes such as MT-63, PSK-31 and Olivia are only authorized on Belmont 145.43. These transmissions must be accompanied by a voice ID.*

Future meetings were discussed. We are seeking speakers and meeting locations for January 20 and March 17.

Finally we had a round table discussion of Public Service events. It was suggested that KC1US continue to notify the board and members of repeater usage in the two weeks before an event. Use of twitter was also suggested as an easy way to get a notice on the MMRA web site. K1KWP noted the newly released clarification of the rules from the FCC which confirmed that paid employees of a non-profit organization may not use Amateur Radio as a control operator to support a fund raising event. W1MPN discussed interoperability and interference issues facing state and municipal agencies.

The meeting adjourned at 21:30.

FCC updates policy concerning paid employees of public service organizations.**Thanks to Bryce, K1GAX, Maine ARES SEC**

MEMA just forwarded this from the FCC. It won't have much effect on most of us. It will only concern those who are paid employees of disaster relief organizations, hospitals and Emergency Management who are hams and will be participating in drills and exercises. It only applies to paid employees and not volunteers. I'm not sure it was sent to any of the disaster relief organizations such as the Red Cross, Salvation Army or hospitals. It might be a good idea to touch base with your EMA Director, Red Cross Emergency Services Director, Salvation Army or hospitals you may be associated with to ensure they are aware of this FCC ruling.



PUBLIC NOTICE

**Federal Communications
Commission
445 12th St., S.W.**

News Media Information: 202-418-0500
Internet: <http://www.fcc.gov>
TTY: 1-888-835-5322

DA 09-2259

Released: October 20, 2009

AMATEUR SERVICE COMMUNICATIONS DURING GOVERNMENT DISASTER DRILLS

Transmissions by amateur stations participating in government disaster drills must comply with all applicable amateur service rules. While the value of the amateur service to the public as a voluntary noncommercial communications service, particularly with respect to providing emergency communications, is one of the underlying principles of the amateur service,¹ the amateur service is not an emergency radio service. Rather, it is a voluntary, non-commercial communication service authorized for the purpose of self-training, intercommunication and technical investigations carried out by licensed persons interested in radio technique solely with a personal aim and without pecuniary interest.²

State and local government public safety agencies occasionally conduct emergency preparedness or disaster drills that include amateur operations. Some entities, such as hospitals, emergency operations centers, and police, fire, and emergency medical service stations, have expressed interest in having their employees who are amateur station operators participate in these drills by transmitting messages on the entity's behalf. The Commission's Rules, however, specifically prohibit amateur stations from transmitting communications "in which the station licensee or control operator has a pecuniary interest, including communications on behalf of an employer."³

Given the public interest in facilitating government-sponsored emergency preparedness and disaster drills, we take this opportunity to provide a clear process for requesting a waiver, and the information that we require in order to consider granting such a request.⁴ Waiver requests should be submitted to the Wireless Telecommunications Bureau by the government entity conducting the drill, and must provide the following information: (1) when and where the drill will take place; (2) identification of the amateur licensees expected to transmit amateur communications on behalf of their employers; (3) identification of the employers on whose behalf they will be transmitting; and (4) a brief description of the drill. We emphasize that the filing of a waiver request does not excuse compliance with the rules while that request is pending. The waiver must be requested prior to the drill, and employees may not transmit amateur communications on their employer's behalf unless the waiver request has been granted.

In an actual emergency, the Commission's Rules provide that an amateur station may use any means of radiocommunication at its disposal to provide essential communication needs in connection with the immediate safety of human life and the immediate protection of property when normal communication systems are not available.⁵ In those circumstances, rule waiver is not necessary.

For further information regarding matters discussed in this *Public Notice*, contact William T. Cross of the Wireless Telecommunications Bureau, Mobility Division, at (202) 418-0680, William.Cross@fcc.gov.

By the Chief, Wireless Telecommunications Bureau; Chief, Public Safety and Homeland Security Bureau; and Chief, Enforcement Bureau.

-FCC-

19 September Foxhunt

Tim Shepard ~ KD1KY

On September 19, 2009, the MMRA Saturday morning fox-hunt was held on the input (146.19) to the Weston 146.79 repeater.

Tim KD1KY was the fox and made 3 bonus transmissions before the official 10am start time. The bonus transmissions around 9:40am and 9:45am were made while westbound on Route 9 in Newton. The 9:55am bonus transmission was from the fox hiding location. Starting at 10:00am, 30-second long transmissions were made every 5 minutes.

The fox was located near the end of Riverside Road in Newton, parked in one of the parking slots next to the park.

Riverside Road is about 4 miles SE of the repeater site and is not shown on some maps. It is a short dead-end road, only about 300 feet long, running parallel to and just south of the Mass Pike. It connects to Charles Street to the east, and dead

ends near the Charles River. It is about a quarter mile east of Route 128. It can only be reached by car by passing through the Charles Street tunnel underneath the Mass Pike.

Transmissions from Riverside Road were made using only 0.5W into a mag-mount antenna on the car. The two earlier transmissions while traveling on Route 9 were made with higher power (perhaps 20W).

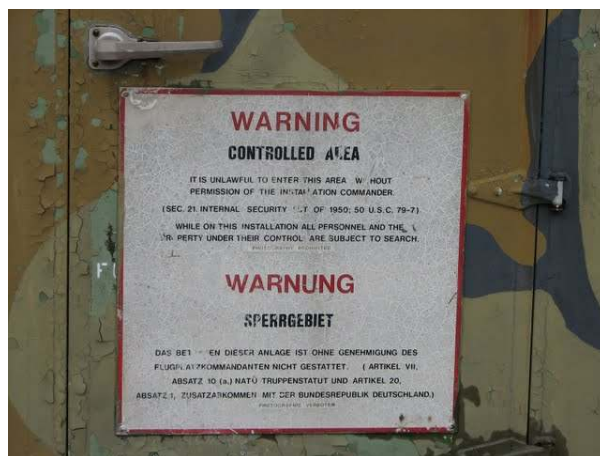
The fox was first found at 12:06pm by Briggs AB2NJ and Dick WB1W. Next to find the fox was Charles AA1VS at 12:11pm. And then Alan N1TBN and Mike N1OMJ arrived at 12:12pm. Jonathan KB1SDS and Jonathan KC6F arrived at 12:25pm.

At 12:30pm the fox announced the location and the hunt ended.

New Shelter for Marlboro West

A new shelter for MRW was moved from Maine to Marlboro. Many thanks to **N1KMA** for donating the shelter and to Keith (**KB1OEI**) of Land's towing for transporting the shelter for the club!

Photos Courtesy of Bryan Cerqua ~ W1BRI



24 October Foxhunt

Dick MacPherson ~ KB1W

It was a very dismal day. The 'fox' did not mind, as it was his day finally for another few hours of freedom before the hunters descend on him again. On a day like this, the 'fox' has some advantages over the hunters. He has a choice of staying under a roof and keeping dry, while the hunters are continually going out in the elements to take their bearings.

With such dismal conditions, he also takes advantage of yelling loud as his voice will propagate and reflect off the nearby hills and create echoes thru the valleys below. Is this the day the fox sees final freedom?

At 10 AM on October 24, 2009 the hunt commenced. Today the hunting territory was centered on the Burlington Repeater with his hiding territory limited to a radius of 10 miles. The fox's voice could be heard every 5 minutes for 30 seconds during the next hours. To the hunters this would often present a tease, always wishing for a little longer transmission. As the hunt went on it appeared that the weather & rain was causing problems with the signal they heard, as it would at times vary as reported.

The hunt continued and during the first hour the fox could hear the hunters going wildly around the countryside and at times away from his location. Yes, this may be the final day for freedom.

It was not just the hunters on the repeater, in addition, we heard from others (ex: W1GFF) at home reporting they are 'Listening & Enjoying the Hunt'.

After an hour and twenty minutes the fox's voice was getting sore from yelling so loud and reduced his power from 50 to 20 watts. Still there are no hunters showing themselves. The fox at times would try and tease the hunters with some subtle hints.

As the second hour mark approaches the fox gets braver and starts to give hints to taunt the hunters with his freedom he may soon enjoy forever.

Too smart he got, because at 12:20, the N1OMJ team (with N1TBN & AB1IC) came round the corner. The fox was found and his freedom had ended.



The 'fox' was finally located at Whip Hill Road in Stoneham.

The fox continued his transmissions and at 12:43, VK3MD came around the corner. He was soon followed up by AA1VS at 12:49.

By 1:00 the remaining hunters arrived at site and the hunting stories started to develop among the hunters. A few decided to continue the stories over lunch at Polcari's in Woburn.

Despite the weather a good time was had by all.

Again would like to thank, the Minute Man Repeater Association, for use of their repeater during this hunt.

Although the fox has been captured again he will soon be released again. The first hunter, N1OMJ, who took the fox captive will be the fox on the next hunt. Stayed tuned, the details of the next hunt will be announced.



Join the fun and try your skills. Talk to a hunter, grab a ride or try on your own. You soon will be enjoying the sport of 'fox hunting'.

From left to right: WB1W (Dick, the 'fox'); VK3MD (Mark with his son); AA1VS (Charles); KD1KY (Tim); N1TBN (Alan); N1OMJ (Mike); AB1IC (Deb); AB2NJ

The Amateur's Code

The Radio Amateur is:

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

Paul M. Segal, W9EEA, 1928

Dues were Due Sept. 1st

\$25 / Individual

\$35 / Family

Pay on line with PayPal:

- 1- Go to the MMRA home page at www.mmra.org
- 2- Click on Member's Login at bottom left
- 3- Login in with your call and password
- 4- If you are not paid up, you will see "It's Membership Renewal Time! Please verify your information below is correct and [click here](#) to renew now. Click there, and pay!

...or pay by check — see page 9

MMRA Leaders

Officers

President	Bob DeMattia	K1IW
Vice President	Steve Telsey	N1BDA
Secretary	John McGovern	W1JMC
Treasurer	Kevin Paetzold	K1KWP
Clerk	Bob Evans	N1BE
Technical Officer	Bryan Cerqua	W1BRI

Board of Directors

Director »2010	Clark Conti	N1NVK
Director »2010	Mike Neilsen	W1MPN
Director »2011	Steve Schwarm	W3EVE
Director »2011	Roger Coulson	WA1NVC

Repeater Trustees, Appointed

Belmont 145.430	Larry Arone	WA1RTT
Boston 927.775	Rick Zack	K1RJZ
Brookline 146.820	Bob Phinney	K5TEC
Burlington 146.715	Chris Conti	N2NVL
Burlington 446.775	Larry Banks	W1DYJ
Hopkinton 223.940	Kevin Paetzold	K1KWP
Marlboro 53.810, Quincy 146.670, Southboro 449.575	Bryan Cerqua	W1BRI
Marlboro 144.390, 145.160, 147.270, 224.880, 449.925, Weston 442.700 — all as W1MRA		
	Bill Northup	N1QPR
Mendon 146.610	Jim Podsiadlo	AE1C
Quincy 224.400	Bill Dunn	N1KUG
Weston 146.790	Bob Evans	N1BE
Weston 224.700	Eddie Mulhern	N1NOM

Appointed, non-Voting

Newsletter Editor	Larry Banks	W1DYJ
Emergency Coord.	Kevin Paetzold	K1KWP
Public Service Coord.	Bruce Pigott	KC1US
VEC Liaison	Bill Wade	K1IJ
Net Manager	Larry Banks	W1DYJ
Web Page Editor	Bob DeMattia	K1IW

Upcoming MMRA Meetings

All meetings start at 7:30 unless otherwise noted.

Date	Location	Feature
Wed, Sep 16 7PM	Westborough	Membership Meeting
Wed, Oct 21	Stratus	Board Meeting
Wed, Nov 18 7 PM	Milton Library	PAVE PAWS ~ Membership Meeting
Wed, Dec 16		Board Meeting
Wed, Jan 20		Membership Meeting
* Wed, Feb 10		Board Meeting
Wed, Mar 17		Membership Meeting
* Wed, Apr 14		Board Meeting
Wed, May 19	Clay Center, Brookline	Annual Meeting

* Not the 3rd Wednesday or not the normal time of 7:30PM

Treasurer's Report

Kevin Paetzold ~ K1KWP

INCOME

Dues	\$2350.00
Future Dues	50.00
Donations	560.91
Misc	1847.56
Newsletters	40.00
Total Income	\$4848.47
Expected Income	1171.65
TOTAL	\$6020.12

MEMBERSHIP

Members joined/renewed for

2007-2008	173
2008-2009	191
2009-2010	147

Members needed for parity
with last year 44

Significant payments since last board meeting:

MRW Tower Work	\$2463.73
Phone	120.00
Electric	350.00
SCOM 7330's	948.00
Power supply/stuff for .82	175.00
HOP/MRW/900 lightning etc..	~ 600.00
Newsletters	80.99
Maint.	164.24

EXPENDITURES

Total Spending so far	(\$7187.04)
<u>Expected remaining expenses</u>	<u>1418.81</u>
Total Expected Spend	(\$8605.85)
Total Expected Income	\$6020.12
Expected balance delta at year end	(\$2585.73)

Upcoming Known/Expected Significant Payments

Verizon	\$131.60
Galaxy	203.00
Electric	272.36
Newsletters	233.15
MRE Rent	150.00
Insurance	520.00
Corp Fees	18.50
Total expected remaining expenses	\$1418.81

Don't Forget!
Every Tuesday @ 8 PM
Technical, Informational
and Other Stuff Net

The MMRA's repeaters are linked Tuesday nights for the TIAOS Net. Join us! This is a good way to keep up with what is happening in the MMRA and ask your ham related questions.

We need another net control!

If you would like to try your hand at Net Control contact me at W1DYJ@mmra.org – we have a script you can use to start with. This is good practice for a number of ham related operations, from emergency preparedness to contesting.

Current Net Control Operators:

Week 1	WA1JIM	Jimmy Devaire
Week 2	???	OPEN
Week 3	W1DYJ	Larry Banks
Week 4	K1KWP	Kevin Paetzold
Week 5	W1DYJ	Larry Banks

Dues were Due Sept. 1st

\$25 / Individual

\$35 / Family

Make out your check to:

Minuteman Repeater Association

...and send your check to:

MMRA

P. O. Box 669

Stow, MA 01775-0669

Be sure to add your call(s) to the check

...or pay on line — see page 8

MMRA VE Sessions

3rd Saturday of each Month

9 AM at the

Marlboro Public Library

Contact: Bill Wade, K1IJ

781-891-9079

Evenings 6 to 10 PM,

Weekends 8 AM to 10 PM.

Accredited by the ARRL VEC



Membership Meeting
Wednesday, 18 November, 2009 @ 7:00 PM
The PAVE PAWS Radar
Milton Public Library, 476 Canton Ave, Milton, Mass

Calendar of Ham Radio Events

Public Service Events

See this web site for information
<http://purl.org/hamradio/publicservice/nediv>

Join this NEW Yahoo Group
<http://groups.yahoo.com/group/PublicServiceEvents/>

No upcoming events are shown in either of the above web sites.

New England Area Ham - Electronic Flea Markets

See this web site for contact information
<http://mit.edu/w1gsl/Public/ne-fleas>

6 Nov	Feeding Hills MA HCRA	Cong Ch
7 Nov	Londonderry NH IRS	Lions
7 Nov	Bourne MA FARA	Upper CC VoTech
14 Nov	Rockport MA CAARA	Pidgeon Cove
5 Dec	Windsor CT VR+C Mus	115 Pierson LN
13 Feb	Marlboro MA AARC	Middle Sc
28 Feb	Hicksville NY LIMARC	Levitt Hal
28 Feb	Colchester VT RANV	Hampton Inn
20 Mar	Pomfret CT ECARA	
21 Mar	Southington CT SARA	HS
10 Apr	Middletown NY OCARC	Wallkill Com Ctr
17 April	Lindenhurst NY GSBARC	Fireman Pk
17,18 Apr	Wakefield MA Photographica	AmericalCtr
18 Apr	Cambridge MA	FLEA at MIT

THE MINUTEMAN REPEATER ASSOCIATION

MMRA
P.O. Box 669
Stow, MA. 01775-0669

Email: contact@mmra.org



WE'RE ON THE WEB
[HTTP://WWW.MMRA.ORG/](http://www.mmra.org/)
